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Increasing Impact of Scholarly Journal Articles: Practical Strategies Librarians Can Share

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Abstract

Researchers are extremely interested in increasing the impact of their individual scholarly work, and may turn to academic librarians for advice and assistance. Academic librarians may find new roles as consultants to authors in methods of self-archiving and citation analysis. Librarians can be proactive in this new role by disseminating current information on all citation analysis tools and metrics, as well as by offering strategies to increase Web visibility of scholarship to interested faculty. Potential authors of journal articles, especially those faculty seeking greater research impact, such as those seeking promotion and tenure, will find practical suggestions from librarians invaluable. Citation analysis tools continue to improve in their coverage of social and behavioral science fields, and emerging metrics allow more flexibility in demonstrating impact of published journal articles.

Increasing Impact of Scholarly Journal Articles: Practical Strategies Librarians Can Share

Academic librarians are always seeking new ways to use their expertise to assist faculty and students. Faculty and other researchers are interested in learning practical tips to increase Web visibility of their publications, thereby hoping to increase the impact of their own scholarship by reaching more readers on the internet. The traditional paradigms are changing, and librarians may be well positioned for new roles in consulting with clients about methods of increasing research impact of published articles. This type of reference service may be especially valuable to faculty seeking promotion and tenure, or to others wishing to take advantage of developments in open access for personal gain. By keeping certain strategies in mind when writing for publication, authors can realize greater impact of their articles. Academic librarians can disseminate information about strategies that authors can use when

choosing publications, and provide information on new methods of proving impact in different ways.

There have been many new developments with citation analysis of late, and librarians need to be able to educate clientele about emerging tools and metrics. Impressive new citation analysis tools allow a researcher to package and demonstrate impact textually and graphically. New metrics such as the “h-index,” and “eigenfactor” are providing alternate ways of looking at the impact of citations, authors, and individual journals.¹ Librarians will need to be conversant in these and other emerging metrics in order to remain relevant to discussions about citation analysis, especially in STM areas. New research guides and finding aids should be made available from the library Website to assist faculty and others in keeping up with the most current strategies about open access, and then assisting them in quantitatively demonstrating the increased impact that may result. There are some concerns about the costs of providing all of the necessary citation analysis tools within stretched library budgets. However, some tools are Web-based and free. Some question whether it should be the province of the library to teach classes in citation searching and analysis for purposes of promotion and tenure, or whether it is appropriate for librarians to assist faculty and other researchers in maximizing their impact through self-archiving and other means.

By now, it has become fairly well accepted that open access associated with greater Web visibility increases research impact. A plethora of quantitative studies are available as part of a helpful Webliography that librarians may share with researchers. This Webliography, published by the “Open Citation Project” is updated regularly, and is a one-stop shop for anyone looking to bolster the argument that “open access increases research impact.”² Librarians can offer advice to constituents on strategies to increase visibility of their peer-reviewed journal articles. Subject specialist librarians can prepare discipline-specific information on self-archiving and matters of impact. This information can be disseminated from the library via the Website, or through personal consultation between librarian and researcher. Faculty and other researchers may now be seeking this type of information, and the time may now be opportune for reference and faculty liaison librarians to get involved in proactively disseminating practical information. Much information discussed previously on these topics has largely been theoretical, or scattered in a variety of library publications and Websites.

For more than a decade, many librarians and scientists have persistently made the case that self-archiving is the open access strategy that would prove most effective for the rapid and widespread dissemination of peer-reviewed scholarly journal articles. Stevan Harnad, first in his “subversive proposal” and still today, continues to advocate for self-archiving of preprints and postprints in repositories as a mechanism to increase Web visibility. This has often been called the “green” road to open access.³ This mechanism of increasing visibility is outside of the traditional publishing system,

and only requires authors to retain rights, and to deposit their own work in a digital repository of their choice. Librarians must understand the potential of self-archiving to transform the scholarly communication system for many disciplines.

Peter Suber has also published many Weblists and articles for librarians who would like to remain current with open access initiatives and trends.⁴ Depending on the university, librarians might not only be expected to lead the discussion on self-archiving, but also to assist researchers with the actual process of depositing scholarly work in appropriate digital repositories. Those working at libraries developing institutional repositories will also take on the task of encouraging faculty to participate in the population of the institutional repository.

There are many other types of open access models. Open access journals, “born digital” on the Web, also offer promise for authors seeking impact. Open access journals are included in traditional indexing and abstracting sources, and many have gained prestige in their respective fields. As with any journal, authors should make sure the open access journal is one of quality in the traditional sense. Peer review status, stature of editors and reviewers, and other measures of quality have transitioned well to this new publishing model. Librarians may also be asked to help in choosing an open access publication outlet for a researcher looking to submit peer-reviewed scholarship to a journal that would be free to all on the Web. Also, many traditional journals have liberalized policies and changed business models to accommodate some aspects of open access. Some of the largest commercial publishers may have liberal policies when it comes to self-archiving of postprints.

However it is shared and promulgated, information on open access journals, self-archiving, choosing between different models offered by traditional journals, and the most current citation analysis methods must be discussed and offered to library clientele. Who will be responsible for continuous education of librarians in these areas, and for making decisions about what services will be offered to various groups? Librarians may have broken ranks on some of these issues, not wanting to be responsible for any negative outcome to researchers, or not agreeing with some of the open access strategies currently being trumpeted by library advocacy organizations.

Many have heard of open access, but do not know how to apply the principles and reap the benefits in a strictly practical sense. Open access is a ubiquitous topic in the library world at the moment, and is well-established in some STM disciplines. Those in humanities and some social sciences areas, which have been slower to adopt changes in scholarly communications, may be more apt to need background information on the movement. Many are not sure how open access will affect them. However, information on any strategy for increasing impact through greater Web visibility will be welcomed by researchers. This is information that faculty members

and other research clientele of academic libraries will undoubtedly find compelling and useful. Librarians may want to share the following strategies with all library users in person, from the desk, or through the library Website. The following is an example of a list that academic librarians may want to disseminate widely. This type of list is targeted not to librarians, but to faculty and researchers they work with.

What practical steps can authors take to increase impact of scholarly journal articles:

- Self-archive/deposit publications (preprints and/or postprints) in disciplinary archives. These subject- based repositories allow researchers to archive electronic documents through a simple deposition process. Examples of disciplinary repositories are: CogPrints (cognitive science and psychology), arXiv (physics), and E-LIS and dLIST (librarianship). These subject repositories are crawled by search engines, and many readers using services such as Google, Google Scholar, or OAIster readily find and cite these full-text open access materials. Many more readers will see articles than if they are only available in traditional journals. Articles may appear in traditional journals as publisher PDFs while also appearing in other versions (postprints such as final Word document copies) in subject-based disciplinary repositories. Subject archives do not guarantee sustainability or preservation of publications. Self-archiving is effective for current Web dissemination of work to all potential readers. It is up to authors to make sure that signed copyright transfer agreements (CTAs) allow self-archiving of scholarly peer-reviewed work. Self-archiving in repositories crawled by search engines really gets an article out on the Web for all to find and read.
- To see what publisher allows in terms of self-archiving, check the publisher or journal name in the SHERPA/RoMEO Website, <http://www.sherpa.ac.uk/romeo.php>. This Website describes the kind of archiving the publisher allows; for anything beyond what's presented, researcher may need to email the publisher or editor. Many journals do not make their copyright transfer agreements publicly available. Many only mention permission to self-archive on personal Web pages, or in institutional repositories, not mentioning subject archives. Researchers may have to seek permission to self-archive in disciplinary/subject repositories.
 - If signing a restrictive copyright, authors may need to get a copy of SPARC's "Author's Addendum" to retain more personal rights to self-archive. There are other examples of added language from many universities that can be found on the Web. These statements may serve to extend author rights. Authors must be aware of the importance of

retaining rights to use of their own work, rather than just signing their copyright away to publishers.

- Deposit all work in an institutional repository. A repository will preserve scholarly output, and pulls together all of an author's interdisciplinary work in one location. Permanent digital preservation/archiving of an author's work, especially if it has not been published in print is very important. The institution's repository offers this security, as well as a convenient place to direct others to find the entire corpus of an author's work. Personal Web pages may be subject to a lack of quality control. Some repositories are crawled by Google, aiding discovery by many Web searchers outside the institution. Institutional repositories have many other benefits to all researchers in the academy. The visibility of interdisciplinary research initiatives in progress or completed, the discovery of potential collaborators across the institution, the ability to archive datasets, the total research production of an institution displayed in one place, and the possibility of integration with courseware are just a few of the many benefits. A few libraries mandate deposition of faculty work in the institutional repository, but for most, participation is voluntary.
- Make sure when submitting work to traditional commercial or society journal publishers that they are participating with Google Scholar so Google can crawl the content. Most publishers are now “partners” with Google Scholar but some are still only participating in a limited way, or not at all. If an author's work cannot be found in a search of Google Scholar, it is best to contact any publishers that are non-partners and ask them to participate with Google Scholar. You will want your publications to appear in Google Scholar with all of their versions, both free and subscription. Many libraries link their subscribed collections with Google Scholar for enhanced access, drawing more readership to an author's work. Those articles appearing in Google Scholar will then benefit from the citation analysis that results.
- Seek to publish work in peer-reviewed open access journals. Articles published in these scholarly online journals will go quickly to the Web to be found by searchers. Open access journals are free to readers, and most are free to authors, so there are no subscription barriers. Don't dismiss “author pays” models if research funding is available. Make sure open access journals, those “born digital,” have high level editorial boards, and prestige in the field. Authors should make sure that the open access journal, as well as any other journal of interest is included in as many subject and citation indexes as possible to ensure discovery by more searchers of library subscription databases. Open access journals are

subject to the same coverage criteria as any other print or electronic journal when applying for coverage by the subject and aggregator indexes. If publishing in any journal, make sure that journal is indexed in all appropriate subject indexes and databases. Searchers of subject indexes will discover these articles, and consider them vetted for scholarly value.

- If an author plans to publish work in a traditional, high impact journal, it helps to know that some make their older issues open access free on the Web after a short “embargo” period. In this case, the journal is not open access per se, but all older issues get wide circulation on the Web. An example is “College & Research Libraries,” which is free on the Web after a six-month embargo period. Many of the publishers of these journals allow self-archiving of postprints during the embargo period. Even those that do not convert their journals to open access still may allow self-archiving of postprints. Elsevier is an example of a commercial publisher that allows self-archiving of postprints. Authors should ensure that the business models of the publications they submit to will eventually allow some version of the article(s) to be discoverable via the open Web.
- Make sure any journal that you publish in has an electronic version. If you find one that doesn't, ask if they are considering adding this format, and let them know that it matters to you. Journals available only in paper format that don't allow self-archiving are seen by limited readers in the age of the internet. Articles in some books may suffer from this same lack of Web visibility.
- Authors should send out information about their articles on listservs, personal Websites, blogs, and other online communication channels, to increase downloads. In the future, number of downloads may also have some significance as far as impact. Some publishers advertise their “most downloaded articles.” These articles are featured on publishers' Websites, and then downloaded more.
- As far as increasing impact, it is advantageous if journals, open access or not, are indexed by Web of Science and Scopus. If the journal isn't part of Web of Science, it is less likely to be considered “prestigious” by some faculty bodies. If it is not included in Web of Science, it will not have a published “impact factor.” Journals with high impact factors are cited more often, and considered more prestigious. This is especially true for STM areas, less likely for some other disciplines, especially in the humanities. For authors trying to demonstrate impact, journals covered by these indexes would be important.
- Follow citation impact in Google Scholar, Web of Science, and Scopus to get a more comprehensive picture. Web of Science, although the traditional “gold standard” of citation analysis, is especially lacking in

humanities areas. Scopus has much greater coverage of titles in both sciences and social sciences, and some additional features for citation analysis. Google Scholar uses an automatic algorithm, and therefore returns some interesting results. Still, Google Scholar will uncover citations from a different set of materials, and will provide some indication of impact for authors. When using Google Scholar, and the new metrics based on it, such as Harzing's "Publish or Perish,"⁵ researchers need to be reminded that librarians are not sure what publications are being covered, and the algorithm used to do the analysis still remains somewhat unknown. The other citation indexes publish coverage lists, and are clear about their algorithms. Still, Google Scholar should not be discounted for citation analysis due to its heavy use in academia.

- Consider putting non-refereed materials in repositories also. To deposit, material doesn't have to be peer-reviewed. Preprints are allowed in many repositories because the material hasn't been "published previously." Preprints can give scholarly articles Web visibility prior to certification in a peer-reviewed journal. This practice can vary by discipline, and some publishers may not accept articles that have been made available on the Web before submission. Some fields such as high energy physics have been using a preprint model for quite some time. Other fields do not have such a preprint culture.
- Sharing research data has been shown to increase citation impact. Depositing supplementary data in a repository, or publishing it alongside an article in an open access journal has been shown to gather more citations to the accompanying article. One recent study of cancer clinical trials shows that sharing data may increase impact in some fields by as much as 70%.⁶
- Authors may use a combination of many of the above; there is no limit as to where a particular work may be self-archived. Rather than the traditional practice of simply signing away copyright to a scholarly publisher, a copy can also be deposited in the institutional repository, archived in subject/disciplinary archives, and on personal Webpages if the publisher allows. This deposited article is usually the postprint (often in the form of a final Word document), or a preprint (often already accepted by a publisher). Branded publisher PDFs, in the case of commercial or society journals, usually face restrictions as far as archiving.

The main point is for academic librarians to offer faculty authors and other researchers some proven strategies to get their peer-reviewed articles seen by more people on the Web. This will potentially raise the profile and impact of published work. This impact can then be quantitatively demonstrated with both traditional and

new citation analysis tools. Librarians can compile lists of tips and strategies to assist authors and researchers in these areas. These lists can be published as Web guides, or shared with faculty and researchers in other ubiquitous ways. Appropriate places for this information would be the “faculty services” area of the library Website, the scholarly communications committee Website, in brochures distributed at desks, and as part of research consultations and fora with faculty and other researchers. Librarian expertise in these areas will have great value to researchers in the academy, and enhance the suite of services that the library can provide in a new and changing research environment. Librarians must prepare for, and welcome the conversation.

Notes

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http://southernlibrarianship.icaap.org/content/v09n01/mullen_101.html.